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**APPLICATION**

**FOR UNITED STATES LETTERS PATENT**

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**SPECIFICATION**

TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN THAT I, **JAMES HOWELL**, a citizen of  
UNITED STATES OF AMERICA, have invented a new and useful  
**AUXILARY HANDLE DEVICE FOR USE WITH**  
**CONVENTIONAL HANDHELD SCREWDRIVERS** of which the  
following is a specification:

# AUXILARY HANDLE DEVICE FOR USE WITH CONVENTIONAL HANDHELD SCREWDRIVERS

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## BACKGROUND OF THE INVENTION

### 10 Field of the Invention

The present invention relates to au and more particularly  
pertains to a new auxilary handle device for use with conventional  
handheld screwdrivers for providing additional torque and reducing  
15 muscle strain.

### Description of the Prior Art

The use of screwdrivers with specialized handles is known in  
20 the prior art. Illustrative examples include: U.S. Patent No.  
5,551,323; U.S. Patent No. 6,148,701; and U.S. Patent No.Des.  
436,822.

While these devices fulfill their respective, particular  
25 objectives and requirements, the need remains for a device that is  
superior in working with a wide range of conventional  
screwdrivers.

## SUMMARY OF THE INVENTION

While the manual screwdriver is a very useful tool, there are  
5 significant drawbacks associated with its use. Foremost is the  
ergonomic oversight in handle design, which contributes to the  
frustration and even pain that is commonly experienced by  
consumers when attempting to start and/or drive screws. Although  
many are knurled or otherwise grooved to provide better gripping,  
10 the cylindrical design of the screwdriver handle demands that power  
to drive and particularly to start a screw is supplied in large part  
from the consumer's hand and fingers. Only a limited amount of  
arm force can be applied to a screwdriver handle before one's hand  
begins to slip. Trying to drive a number of screws into hardwood  
15 or other resilient surfaces often results in sore hands.

The present invention is a specially designed attachment for  
screwdriver handles that features a unique ball-shaped handle.  
Variations on the basic ball shape include a "pistol grip" type  
20 handle, as well as other hand-friendly ergonomic designs. The base  
of the device, where it affixes to the screwdriver handle, would  
feature a circular "mouth" large enough in circumference to permit  
the end of most any standard screwdriver handle to be inserted to a  
depth of approximately two inches (2"). To secure the mouth of the  
25 device to the screwdriver handle a number of commonly used  
methods could be used including butterfly screws, spring clamps or  
a drill chuck type of clamp.

Use of the present invention would be very simple and straightforward. First, the user would slip the mouth of the device over the end of a selected screwdriver handle and securely clamped in place. Once affixed to the screwdriver handle the device would  
5 be used in very much the same way as any other screwdriver.

The present invention offers a number of important benefit and advantages. Foremost, due to the device's comfortable, oversized and ergonomically designed handle consumers would be  
10 better capable of using the strength of their arms as well as their hands, important when trying to start a screw in a hard surface. Additionally, the larger handle of this practically designed device would allow more leverage or torque to be applied when driving screws, making this task much easier and quicker. Another  
15 important benefit is related to this product's versatility. Designed to quickly and easily attach and remove, every tool found in the consumer's box possessing similar handles could make use of this device.

20 There has thus been outlined, rather broadly, the more important features of the invention in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the invention that  
25 will be described hereinafter and which will form the subject matter of the claims appended hereto.

The objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with  
30 particularity in the claims annexed to and forming a part of this disclosure.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

5 The invention will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

10 Figure 1 is a schematic perspective view of a new auxiliary handle device for use with conventional handheld screwdrivers according to the present invention.

15 Figure 2 is a schematic perspective view of the present invention with a spring clamp retaining means.

Figure 3 is a schematic perspective view of the present invention with a chuck retaining means.

20 Figure 4 is a schematic side view of the present invention showing flutes for the retaining means.

## **DESCRIPTION OF THE PREFERRED EMBODIMENT**

25 With reference now to the drawings, and in particular to Figures 1 through 4 thereof, a new auxiliary handle device for use with conventional handheld screwdrivers embodying the principles and concepts of the present invention and generally designated by the reference numeral 10 will be described.

30 As best illustrated in Figures 1 through 4, the auxiliary handle device for use with conventional handheld screwdrivers 10 generally comprises a handle portion 20 designed for being grasped by a human hand, and a coupling portion 30. The coupling portion

30 selectively receives a handle of a conventional screwdriver 2.  
The coupling portion 30 is operationally coupled to the handle  
portion 20 such that rotation of the handle portion 20 in a first  
direction imparts rotation in the first direction to the coupling  
5 portion 30 and to the conventional screwdriver 20 in turn.

Preferably, the coupling portion 30 further comprises a  
cylindrical perimeter wall 32 forming a cavity portion 34. The  
cavity portion 34 slideably receives a portion of the handle of the  
10 conventional screwdriver 2.

Additionally, the coupling portion 30 may further include a  
retaining means 40. The retaining means 40 selectively secures the  
portion of the handle of the conventional screwdriver 2 to the  
15 coupling portion 30.

A leverage bar member 25 may be operationally coupled to the  
coupling portion 30. The leverage bar member 25 is positioned  
such that it is substantially perpendicular to the handle portion 20  
20 when the leverage bar member 25 is operationally coupled to the  
coupling portion 30. The leverage bar member 25 facilitates  
application of additional torque to the conventional screwdriver 2.

In an embodiment the retaining means 40 comprises a  
25 threaded aperture 36 extending through the perimeter wall 32, and a  
screw 42 which can be threaded through the aperture 36 to create an  
interference fit with the portion of the handle of the conventional  
screwdriver 2 and an interior surface of the perimeter wall 32.

In a further embodiment a pair of threaded apertures 34 and a pair of screws 42 are utilized as the retaining means 40 to create an interference fit with the portion of the handle of the conventional screwdriver 2.

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In another embodiment the retaining means 40 is a spring clamp 44.

In a further embodiment the retaining means 40 further  
10 comprises a series of flutes 46 positioned around an interior portion of the perimeter wall 32. The flutes 46 are aligned with a series of grooves extending along the handle of the conventional screwdriver 2 when the handle is received in the coupling portion 30. The  
15 flutes 46 and the grooves inhibit rotation of the screwdriver 2 with reference to the coupling portion 30.

In still a further embodiment the retaining means 40 further  
comprises a chuck assembly 50. The chuck assembly 50 includes a  
jaw portion 52 closable around the portion of the handle of the  
20 conventional screwdriver 2.

With respect to the above description then, it is to be realized  
that the optimum dimensional relationships for the parts of the  
invention, to include variations in size, materials, shape, form,  
25 function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

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Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable  
5 modifications and equivalents may be resorted to, falling within the scope of the invention.